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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/654,422

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Niraj Vasishtha

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EXAMINER

HAIDER, SAIRA BANO

ART UNIT

PAPER NUMBER

1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/654,422	Applicant(s) VASISHTHA ET AL.	
	Examiner SAIRA HAIDER	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7,9,13-17 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7,9,13-17 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 7, 9, 13-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brain (US 4,145,184) in view of Trexler, Jr. (US 6,162,857).
3. Brain discloses a detergent composition containing encapsulated perfume (abstract). The shell material surrounding the perfume core to form the microcapsule can be any suitable polymeric material which is impervious to the materials in the liquid core and the materials which may come in contact with the outer surface of the shell. The microcapsule shell wall can be composed of a wide variety of polymeric materials including polyester (col. 3, lines 38-50).
4. Wherein the microcapsule composition is a granular composition (i.e. powder) (col. 9, lines 46-61). The microcapsules are formed via coacervation (col. 3, line 65 to col. 4, line 8).
5. Brain fails to disclose the claimed structuring agent in the form of platelets, thus attention is directed towards the Trexler, Jr. reference. The Trexler, Jr. reference discloses polyester-platelet particle composite comprising; at least one polyester having dispersed therein a platelet particle dispersion comprising about 0.01 to about 25 weight percent platelet particles (abstract). The platelet particles have a thickness of less than about 2 nm and a diameter in the range of about 10 to about 1000 nm (claim 2). The polyester- platelet particle composite of Trexler, Jr. reference exhibits improved gas barrier properties (col. 3, lines 19-23). Further the reference discloses the inclusion of typical polyester additives, such as antioxidants (col. 11, lines 42-47).
6. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the polyester- platelet particle composite of Trexler, Jr. as the shell material in the microcapsule

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composition of Brain. The motivation is provided by the fact that the polyester- platelet particle composite of Trexler, Jr. improves gas barrier properties and the Brain reference desires to protect the core fragrance material throughout the laundering process (col. 2, lines 50-55).

7. Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, since the prior art teaches the identical chemical structures for the core, structuring agent and the polymer material, the properties (pendant ionic groups, formation of an ionic bridge, and decrease in oxygen and water permeability) applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The burden shifts to the applicant to show an unobvious difference. Note that because the reference does not expressly teach or address the properties of the claimed invention, does not mean that the properties are not inherently disclosed. Teaching the same compound(s) inherently discloses the corresponding properties. The references cannot possibly teach or address all of the properties, but implicitly all of the properties are present.

8. In reference to the amendments of claim 7 and 17, specifically regarding the polymer material forming an inner shell around the core and the structuring agent forming an exterior shell around the inner shell. It would have been obvious to one of ordinary skill in the art at the time of the invention to form a dual layered microcapsule, wherein both outer layers comprise the structuring agent and the polymer material, however, each layer comprises the components in different amounts. The motivation do to so is provided by the fact that a thicker coating will better protect the core material and decrease chances of undesired core release. Further, a variation in the amounts of components will further increase the strength of the core material. Specifically, Trexler, Jr. notes that inclusion of 0.01 wt % of platelet particles provides an improved barrier, and

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compositions comprising at least about 0.5 wt % have improved gas permeability properties (col. 8, lines 55-61).

9. Either the inner layer or the outer layer can comprise a greater amount of the structuring agent and thus can be considered the structuring agent layer. The corresponding is true for the polymer material. It is the examiner's position that selection of which layer comprises a greater amount of either material is rendered result effective variables because changing them will clearly affect the type of product obtained. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

10. In view of this, it would have been obvious to one of ordinary skill in the art to utilize a greater amount of structuring agent in the outer layer (at least 0.5 wt% as taught by Trexler, Jr.) so as to produce desired end results: an outer layer with gas barrier properties and an inner layer comprising 0.01 wt% of the structuring agent to provide an improved barrier.

11. Wherein it is clear that if the outer layer comprises a greater amount of structuring agent and the inner layer comprises a smaller amount of structuring agent, the gradient of claims 7 and 17 is obtained. Specifically, at the boundary of the inner and outer layer, the differences in the structuring and polymeric amounts inherently results in the formation of a gradient.

12. It is noted that the outer layer can be considered the structuring agent layer since it comprises the structuring agent, and the inner layer can be considered the polymer material layer since it comprises the polymer material.

Response to Arguments

13. Applicant has argued that it would not have been obvious to include a structuring agent (e.g. a silicate) in the shell of Brain since the Brain reference discloses that silicates are builders for the

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detergent. In response, the rejection is based on the inclusion of the structuring agent of Trexler, Jr. into the polyester shell of Brain. As noted in the rejection Trexler, Jr. discloses that the structuring agent is compatible with polyester and results in improved gas barrier properties.

14. Applicant has further argued that the an improvement in the gas barrier properties as per the teachings of Trexler, Jr. has nothing do with the formation of a friable microcapsule of Brain. As noted by the applicant the microcapsules of Brain must be friable in nature and have the propensity to rupture or break open when subjected to direct external forces or shear forces. The inclusion of the polyester-structuring agent of Trexler, Jr. will improve the gas barrier properties and function to better protect the core material of Brain, but it is not considered to impede the propensity of the microcapsules to rupture via direct external forces since the polyester-structuring agent does not function to prevent rupturing. Additionally, Brain desires to protect the core fragrance material throughout the laundering process, thus the gas barrier improvements are congruent with the Brain reference.

15. Applicant has argued that the combination of references does not make obvious the claimed gradient of inner polymeric layer to polymer and structuring agent to structuring agent. It is first noted that in the rejection the examiner stated that it would have been obvious to form a dual layer shell, wherein each layer comprises a mixture of the polymer and structuring agent. Further, depending on the amount of polymer or structuring agent present in each layer, the layer can be considered as either a polymeric layer or a structuring agent layer. As clarified in the rejection above, it would have been obvious to have an inner polymeric layer and an outer structuring agent layer, wherein Trexler, Jr. teaches that a lower amount of the structuring agent in the polyester provides an improved barrier and higher amounts of the structuring agent provides improved gas barrier properties.

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16. Applicants have argued that it would not have been obvious to transition (extending radically into the core) from a structuring agent without polymer, to a mixture thereof, and then to a polymer material without structuring agent. In response, the claims do not specify that the exterior structuring agent layer is devoid of polymer and that the inner polymer layer is devoid of structuring agent. It is inherent that that a gradient will exist at the boundary of the inner and outer layer, wherein the inner layer contains less structuring agent than the outer layer. Applicant has argued that the specification provides unexpectedly improved results where the portion of the shell formed of structuring agent without polymer; however, the claims do not exclude the present of polymer in the structuring agent layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAIRA HAIDER whose telephone number is (571)272-3553. The examiner can normally be reached on Monday-Friday from 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 1796

Saira Haider
Examiner
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